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ABSTRACT

A study to determine needed competencies of teachers of intellectually gifted students was begun with a compilation of 751 competency statements from the literature of general and special education and interviews with parents and teachers of gifted students. Critiquing and refining efforts produced a list of 111 competencies stated in behavioral terms. Statements were then incorporated into a rating instrument and sent to 67 nationally recognized experts for content validation. The final list of 87 competencies are listed under the following categories: professional knowledge and development: communication with parents, colleagues, and community: assessment of student needs: management skills: learning environment: instructional skills: individualized curricula: goal setting: use of learning resources: evaluation of student progress: and advising skills. (CL)

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ESSENTIAL COMPETENCIES OF TEACHERS OF THE GIFTED

by

Charlotte Ann Donaldson

A THESIS

Submitted in partial fulfillment of the requirements for the degree of Master of Arts in Education in the Department of Special Education in The Graduate School, University of Alabama in Birmingham

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I. STATEMENT OF THE PROBLEM

> It is the teacher who sets the environment which inspires or destroys self-confidence, encourages or suppresses interests, develops or neglects creativity, stimulates or discourages critical thinking, and facilitates or frustrates achievement.
>
> -Joan B. Nelson and Donald L. Cleland

The competence of his teacher is a crucial factor in any child's learning, self-understanding, and social adjustment. Indeed, numerous studies have cited the importance of the teacher's knowledge, skills, and attitudes as the key to effective learning in all elementary and secondary educational programs. This project investigated essential competencies of one small but important segment of the profession--the teacher of the intellectually gifted.

Definitions of Terms

The following terms are used in this report. Their definitions are provided at the beginning in order to

assure clarity and consistency of meanings.

ATTITUDE--a disposition or feeling toward persons or things.

CHARACTERISTIC--a distinguishing feature, trait or quality.

COMPETENCE--possession of skills, knowledge, and attitudes required for satisfactory performance.

COMPETENCY-BASED TEACHER EDUCATION PROGRAM--an educational system that has developed:

1. Conceptualization of roles, responsibilities, and functions of positions for which persons are being trained.
2. Explicit public statement of skills, knowledge, and attitudes expected of program graduates.
3. A public statement of acceptable evidence of attainment of above requirements, as well as a statement of standards and conditions under which the requirements were met.
3. An instructional curriculum congruent with program objectives.
4. A means of monitoring and evaluating the program, and for modifications as needed (Gazzetta, 1974).

CONTENT VALIDATION--a basically judgmental procedure that assesses representativeness or adequacy of items (Kerlinger, 1964, pp. 445-447).

EFFECTIVENESS--adequacy in accomplishing a purpose (in this study the purpose of teacher competence is teacher effectiveness, which accomplishes optimal cognitive and affective development of gifted students.

INTELLECTUAL GIFTEDNESS--as operationally defined for this study, a capacity for outstanding intellectual performance, as (1) estimated by an individual intelligence test

(Wechsler or Stanford-Binet Intelligence Scale) score at least two standard deviations above the mean of the general population or cultural sub-group, or (2) by evidence of outstanding intellectual achievement in comparison with achievements of peers.

KNOWLEDGE--comprehension of facts, truths, and principles gained from experience, study, and investigation.

RELIABILITY--stability, dependability, and predictability (for example: to increase reliability of a psychological measuring instrument, instructions should be clear and items should be unambiguously written (Kerlinger, 1964, pp. 429-443).

SKILL--an ability resulting from aptitude, knowledge, and practice.

A Research Overview

Research studies on teacher effectiveness have been hampered by many problems including inadequate criteria of teacher competence, such as supervisor ratings and classroom observation records that failed to identify effective patterns of teacher behavior, as well as failures to account for intervening variables such as environmental influences outside the classroom. In reviewing over 350 studies carried out between 1900 and 1952, Morsh and Wilder (1955) found that one or more of the above limitations had rendered most of the study results invalid. They suggested that well-designed correlation

studies might yield more reliable results as predictors of teacher effectiveness.

Unfortunately, subsequent correlation studies failed to live up to researchers' expectations. For example, the mammoth Teacher Characteristics Study (Ryans, 1960) used well-designed self-report inventories and attitude and ability scales, as well as an adaptation of Flanagan's (1962) "critical incident" technique and trained classroom observers' reports to obtain data on attitudes, educational viewpoints, verbal intelligence, and emotional adjustment of a large sample of American teachers. The study resulted in a wealth of information on correlational factors, but its findings that most outstanding teachers were religious, had good scholastic records, and came from happy families were certainly unreliable and incomplete criteria for selecting and evaluating competent teachers. One of the productive outcomes of the Teacher Characteristics Study, in addition to the usefulness of its well-designed scales in a large number of later studies, was the identification of twenty-five effective teacher behaviors (Ryans, 1960, p. 82) gleaned from the trained observers' records of teacher-pupil interaction. These behaviors--e.g., adequate planning

and flexible organization of classroom work--were much more closely linked to teacher effectiveness than was such peripheral information as religiosity or family background.

Cogan's (1958) investigation of relationships between observable teacher behaviors and amounts of required and self-initiated work performed by their pupils, and Flanders' (1965) analyses of classroom climate influenced by direct and indirect teacher behaviors, took the classroom observation technique an important step forward by relating teacher actions directly to longer-term changes in pupil behavior.

During the past decade many more studies have focused on relating teacher behavior directly to pupil change, especially with respect to attainment of cognitive and affective learning objectives. Saadeh (1970) advocated setting pupil learning objectives and then analyzing effects of interactions of independent variables, such as teacher behaviors and student attributes, and intervening variables, such as environmental and maturational changes, on dependent variables such as attainment of learning objectives.

Dodl (Note 1) found little empirical evidence for the validity of competencies that were being used in

teacher training programs. Therefore, he advocated treating all competency selections as testable hypotheses. The program could then be held accountable for collecting evidence to support or reject the hypotheses, thereby providing an environment for both research and instruction. Ultimately, this approach could lead to accurate evaluation, using pupil gain as the ultimate criterion of teacher effectiveness (Cogan, 1958; Gowan & Demos, 1964). Thus, a competency listing can be not only a valuable research tool in studies involving evaluation of teacher performance, but can also be of use in directly relating professional coursework to teacher performance and, ultimately, to pupil gain. Indeed, it augurs well for the future of adequate teacher training that many schools of education, special education departments, and state education agencies are considering the benefits of competency-based instruction. Others, including the University of Georgia (Shearron & Johnson, 1973), the North Carolina State Department of Public Instruction (1975), and the Florida State Board of Education (Note 2), have already instituted programs of study.

Importance of Performance Skills

Competency-based training programs for teachers of the gifted could provide behaviorally-oriented instruction in all performance skills needed for adequate instruction and guidance of the gifted. Such programs would constitute a constructive step forward in providing for the needs of this group. Most gifted students are performing far below their intellectual potential (Marland, 1972), and will continue to do so unless appropriate experiences are provided for their optimal development. An indication of the rigorous demands of adequately educating the gifted is the following official definition of "gifted and talented" by the U. S. Office of Education: "Gifted and talented children are those...who, by virtue of outstanding abilities, are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school, in order to recognize their contribution to self and society" (Marland, 1972; emphasis was added).

Paul A. Witty (1958, pp. 44-49) has identified the following general characteristics of gifted children: a wide range of interests; reading proficiency;

curiosity; superior insight; fluency of expression; long attention span; above-average health, social adjustment, and physical endowment.* Since the school experience should provide appropriate learning opportunities for adequate development of all of the above attributes, the awesome responsibilities accruing to teacher training programs and to teachers themselves are, indeed, manifest.

The Problem

Assuming that a proper teaching assignment is "one in which the teacher's total qualifications are matched with the requirements of the position" (National Education Association, 1965), what essential characteristics and skills should the teacher of the gifted bring to his/her unique assignment? The two characteristics most often named in the literature of gifted education are high intelligence--the capability to score at least one standard deviation above the mean IQ of the general population--and empathy, or a feeling of personal identification, with gifted individuals. The skills most often cited are knowledge of the psychology of gifted

*Note: Gifted children with learning disabilities and/or environmental deficits will not exhibit all of these traits; therefore, extreme caution is indicated when applying to individual cases.

children, subject matter knowledge, and methodological expertise. Indeed, there could hardly be disagreement that teacher training candidates with adequate intelligence, empathy, and academic grounding in psychology, subject matter, and methodology already possess the basic qualifications for teaching the gifted. The training institution should then proceed to ensure their capability to utilize the full repertoire of behaviors that result in optimal cognitive and affective development of gifted students. Many researchers, including Blackhurst (1974) and Dodl (1973) have judged competency-based instruction superior to other methods of teacher training. Before competency-based instruction can be instituted, however, the basis for its curriculum must be established by compiling and validating the essential competencies needed for effective instruction of the gifted.

Purpose of the Project

The purpose of this project was compilation of a comprehensive, categorized listing of essential competencies of teachers of the gifted, emphasizing both intellectual and emotional spheres, and establishment of content validity for the competencies. Such a clear

definition of professional skills should prove useful as a basis for teacher self-assessment, professional course-work, and evaluation of teacher performance. Ultimate construct validation of the competencies would require additional research, using pupil gain as the criterion.

Compiling the Competencies

The first step in the procedure of compiling the competencies needed for educating the gifted was gleaning lists of competency statements from the literature of both general and special education.

The second step involved asking researchers with similar goals to share their findings.

The third step consisted of holding informal discussions with teachers and parents of the gifted in order to gain the benefits of their valuable experience and insights.

In the fourth step, competencies gathered in the first three steps were listed separately, on cards, to facilitate categorization.

The fifth step consisted of categorizing the competencies.

The sixth, and final, step involved teachers of the

gifted, the project author, and the author's academic advisor in follow-up discussions to critique, consolidate, and refine the competency statements (Gear, Note 3).

Content Validation

The competencies compiled in the foregoing procedure were reviewed by nationally-recognized experts in the field of gifted child education. Each respondent rated the importance of the competencies on a Likert-type scale, from 1 to 5 (Gear, Note 3). Only the higher-ranked competencies--those with mean ratings of 4.00 and above--were included in the final listing.

Summary and Conclusion

Research on teacher effectiveness has been hampered by many serious problems and false starts, including forays up the blind alley of correlation. In recent studies, however, improved techniques have yielded more valid information on effective classroom behaviors. A comprehensive listing of teacher competencies essential for the instruction and guidance of intellectually gifted students could provide a basis for needed additional research on needs assessment, evaluation, competency-

based professional coursework and, ultimately, the relating of professional coursework to teacher effectiveness, evidenced in pupil gain. This project compiled those essential competencies and provided content validation by nationally-recognized experts.

II. REVIEW OF THE LITERATURE

Since the early 1930's experts have been insisting on the highest standards of excellence for teachers of the gifted, emphasizing intellectual brilliance (Ward, 1961; Mirman, 1964; Hildreth, 1970; Boston, 1975), flawless personalities (Crow & Crow, 1963), and broad educational backgrounds and interests (Cohen & Coryell, 1935; Witty, 1951; Mirman, 1964; Cutts & Moseley, 1965; Rice, 1970). Durr (1964) extolled the unique opportunities of the teacher to uncover and direct giftedness. Freehill (1963) listed several characteristics, including the ability to utilize the scientific method, acceptance of nonconformity, and a zest for learning, as being "peculiarly important" for a teacher of the gifted. Many lists were heavily weighted with truisms and superlatives, as was the following example cited by Gallagher (1975, p. 312):

> Good health and physical superiority
> Versatility of interests
> Creativeness and originality
> Unusual proficiency in teaching subjects
> Participating member of the community
> Clear and consistent philosophy of education

Knowledge of theories of learning
Excellent sense of humor
Abundant physical energy

How could such unmeasurable qualities--better exemplified by a Clare Booth Luce, a Margaret Mead, or a Will Durant than by the American elementary or secondary school teacher--ever be translated into either practical teacher selection procedures or appropriate teacher training curricula? It is hardly surprising that results of a survey of college deans (French, 1961), which investigated professional course offerings, showed very vague descriptions of most gifted education course curricula.

Teacher Characteristics Studies

Bishop's (1966) scholarly and informative study analyzed selected characteristics of high school teachers who had been named "most successful" by gifted, high-achieving high school seniors, and compared their abilities and achievements with a group of teachers who had taught the gifted students but had not been selected as most successful. Ryans' Teacher Characteristics Schedule was completed by every teacher in the study, and the selected teachers were found to differ significantly from the non-selected teachers with respect to items on the

Schedule that estimated (1) businesslike behavior, (2) imaginative behavior, (3) favorable opinions of students, (4) student-centered viewpoints, and (5) superior verbal comprehension. A stratified random sample of the most successful teachers was thoroughly investigated with respect to academic achievements (college records), verbal IQ (Wechsler Adult Intelligence Scale), and motivations (Edwards Personal Preference Schedule). The mean verbal IQ of the sample was 128, almost 2 standard deviations above the mean of the general population, and no teacher in the sample scored lower than 1 standard deviation above the mean. The mean grade point average of the selected group was above 3 on a 4-point scale, and the needs for achievement and understanding of self and others were pronounced. Bishop concluded that teachers who were identified as most successful by gifted, highly-motivated high school students were likely to be mature and experienced, mentally superior, had high achievement needs and attained high levels of achievement, pursued literary and cultural interests, used a student-centered approach in teaching, held high opinions of students, were stimulating and imaginative, were systematic and businesslike, tended to be well-informed, and were interested in their subject matter

specialty; they encouraged independent thought and study, preferred to teach the gifted, and favored special educational programs for gifted students.

While many researchers have expressed doubt concerning the validity of student assessments of teacher competence, others such as Remmers (1963) and Steele (1971) approve the use of student evaluations and have verified their validity. A North Carolina survey (North Carolina Department of Public Instruction, 1969) found that responses of administrators, teachers, and students in the North Carolina Exceptionally Talented Program supported the findings of Bishop with respect to characteristics of successful teachers of the gifted. While further validation of the Bishop study is certainly in order, the evidence indicates that his well-conceived and carefully-executed study provided useful information on characteristics of effective teachers of high-achieving, gifted students.

McNary (1967) investigated relationships between teacher characteristics and pupil achievement in gifted elementary classes. Results were as follows: the teacher's personality appeared to be the most significant variable influencing pupil change in both convergent and divergent thinking; teacher verbal intelligence appeared

to influence pupil growth in reading and mathematical knowledge; the sex of pupils appeared to relate to their fluency.

This study had serious measurement and statistical limitations. Several of the classes of "gifted" students had mean IQ scores of only 120. An even more serious limitation resulted from McNary's failure to use individual IQ tests. Unfortunately, group tests were used for both student and teacher participants, and such tests do not discriminate well between individuals of above average intelligence (Pegnato & Birch, 1959). In addition, numerous t-tests were run, instead of fewer and more appropriate analyses of variance, to test relationships between 10 types of student accomplishment, 16 teacher personality traits, 14 teacher background items (including IQ scores attained through group testing), and 4 class composition items.

A study by Freehill (1974) found that a group of teachers of the gifted who were both intelligent and empathic did not necessarily favor interactionist teaching strategies, leading Freehill to conclude that such teachers could not be expected to utilize highly productive classroom behaviors unless they had been taught to do so.

A further implication of the study's findings was that a good diagnostic instrument was needed to pinpoint areas of weakness in teaching methodology. A competency listing could, of course, serve such a purpose.

Current Trends

Recently, implicit concern for increasing teaching competence has been an integral factor in several behaviorally-oriented teacher training studies and programs. The University of Illinois Demonstration Center (1967) and the North Carolina Department of Public Instruction (1969) have taught teachers to emphasize higher level cognitive operations in instructional programs for the gifted. The California State Department of Education (1975) has encouraged both inservice and preservice teacher trainees to develop the intellectual, creative, and affective skills of gifted students. Renzulli's (1976) Enrichment Triad Model implies the superiority of the behavioral approach to teaching the gifted in defining the teacher's role as that of identifier and structurer of solvable problems, as did C. June Maker's (1975) advocacy of the Franklin Model of Community Change Educator.

Others who have recommended practical approaches to training requirements for gifted educators are Gallagher (1964), Wilson (1955), and Newland (1976). Gallagher (1975) reported that results of a survey of experts showed agreement on the importance of both specialized preparation and continued study for teachers of the gifted.

A more explicit concern for competencies has characterized the approaches of West Virginia (State Department of Education, Note 4), North Carolina (Department of Public Instruction, Division of Exceptional Children, 1975), and Florida (State Board of Education, Note 2).

West Virginia uses a behaviorally-oriented list of competencies as a guideline for professional teacher training. The list includes competencies in the categories of identification and measurement, teaching, resource management, guidance, emotional climate, and knowledge of the nature and needs of the gifted.

North Carolina has a competency-based certification program that includes an instructional guide for self-study in such practical areas as development of instructional plans, use of effective procedures and resources in teaching the gifted, and evaluations of student performance. Also included is a checklist of desirable

characteristics and behaviors of teachers of the gifted, based partly on J. M. Steele's (1971) classroom environment study.

The Florida State Board of Education is sponsoring a study that should result in identification of teacher competencies in all educational areas, for the purpose of providing minimum competency standards for state certification of instructional personnel. The study has completed listing of Florida's Twenty-Three Essential Generic Competencies, which were (1) selected from results of a previous Florida competency study (Dodl, Note 1) and from program guides of in-state and out-of-state institutions and school districts. The selected generic competencies were then (2) listed in a Likert-type instrument and administered to a stratified, random sample of certified Florida school personnel. The criteria for considering a competency essential were that 85% or more of the respondents identified it as Frequently Necessary or at least 51% identified it as Always Necessary to their job role. The second phase of the Florida study, Essential Specialization Competency Studies, to be completed in 1978, will identify special education competencies. A preliminary listing of competencies for teachers of the

gifted is now in use as a guideline for professional coursework.

A Competency Study

The two-year Martinson and Wiener project (1968) was unique in delineating and validating teacher competencies for use in selection, training, and evaluation of master teachers of the gifted in California. The basic assumption of the study was that teacher competencies could first be selected to match the mode of learning of the gifted; then teachers could be trained to demonstrate the competencies in gifted education training courses. The research procedure began with principals in school systems near the sponsoring college nominating seventy-five teachers whom they judged to be flexible, intelligent, creative, and stimulating. Forty-five of the seventy-five nominees were selected to participate in the training course, based on three criteria: (1) observation ratings by judges, judging independently, in pairs, for forty minutes, using a Rating Scale of Significant Behaviors of Teachers of the Gifted, composed of competency statements developed for use in the study; (2) scores on the Terman Concept Mastery Test; (3) ratings on the paper-and-pencil Wiener Attitude

Scale.

The Rating Scale of Significant Behaviors of Teachers of the Gifted was developed in the following way:

Martinson and Wiener listed behaviors and essential teaching strategies for effective teachers of the gifted. A rating scale of 65 statements was tried out in a pilot study of teachers other than the 75 nominees. Ten experts in gifted child education validated the preliminary rating scale by serving as judges in the pilot study. Martinson and Wiener used those judges' comments and an item analysis to improve the scale. The revised Rating Scale of 37 statements, containing 19 kinds of teacher behavior and 3 rating categories--seldom, occasionally, and frequently--was used to screen the 75 prospective training candidates. The interrator reliability was .95. The scale was subjected to factor analysis, with 4 factors emerging as most significant in competent teaching of the gifted: Individualized Materials and Instruction; The Art of Questioning; The Encouragement of Higher Level Learning; Communication-Interaction.

The inservice, self-study course activities consisted of : (1) case studies of the characteristics of gifted children, with particular emphasis on their learning style;

(2) study of appropriate teaching methods for the gifted, emphasizing the importance of encouraging exploration and discovery of information, asking broad, thought-provoking questions, and promoting higher-level thinking and creativity; (3) application of appropriate methodology, including videotaping and analyzing classroom activities.

The Rating Scale scores, subjected to t-test analyses of significant differences, indicated that 80% of the teachers who completed the course showed significant improvement in classroom performance between the first, pre-course, evaluation and the third, post-course, evaluation. Pupil achievement, however, was not tested.

This pioneer study demonstrated that teachers of the gifted could be selected, trained and evaluated with a listing of competency statements, as their personal qualities and academic achievements were inherent in their observable behaviors.

Conclusion

In this review of the literature on characteristics and competencies of teachers of the gifted two unfortunate situations have become apparent: much impractical jargon has been dispensed and little well-designed re-

search has been carried out. Recent trends, however, show a more productive emphasis on identification of specific teacher competencies essential to accomplishment of special educational objectives.

III. PROCEDURES AND RESULTS

The purpose of this research project was compilation of a comprehensive, categorized listing of essential competencies of teachers of the intellectually gifted, emphasizing both cognitive and affective areas, and establishment of content validity for the competencies. It was assumed that such a clear and comprehensive definition of professional skills, stated in practical, behavioral terms, could be useful as a basis for teacher self-assessment, professional coursework, and evaluation of teacher performance.

The Research Method

The method selected for gathering, consolidating, and validating the competencies of teachers of the gifted was based on the Gear (Note 3) mainstreaming* competency study, in which essential competencies for mainstreaming were obtained from the literature of special education,

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*Note: Mainstreaming is the integration of exceptional children into the regular classroom.

from the findings of educational researchers, and from interviews with parents and teachers. The competencies were then compiled under conceptually-meaningful classifications, stated in behavioral terms in a Likert-type rating instrument, and validated by experts' ratings on a scale from 1 to 5, according to how well the items represented their assigned categories.

Compiling the Competencies

In this research project, the first step in compiling competencies for teaching the gifted was gathering competency statements from the literature of both general and special education. Many were taken from written opinions of widely-recognized experts in the field of gifted education. In addition, competencies were obtained from the following sources which cited and/or had conducted empirical studies of teacher effectiveness: Cogan, 1958; Ryans, 1960, pages 97-103; Barr, 1961; DeHaan and Havighurst, 1961; Torrance, 1963; Toronto, Ontario, Board of Education, 1964; Flanders, 1965; Gold, 1965; Hildreth, 1966; University of Illinois, Urbana, 1967; Martinson and Wiener, 1968; Steele, House, Lapan, and Kerins, 1971; Marland, 1972. Useful lists of characteristics and com-

petencies of teachers judged unusually able by students and/or fellow professionals were given by these authors: Strang, 1959; Ryans, 1960, pages 362-367; Mirman, 1964; Bishop, 1966; Gallagher and Shaffer, 1966; North Carolina Department of Public Instruction, 1969; Freehill, 1974; Nelson and Cleland, 1975; Sisk, 1975.

The second step involved asking the following researchers with goals similar to those of this study to share their methodology and findings: Sue Akers, Alabama State Department of Education; A. Edward Blackhurst and Cregg F. Ingram, University of Kentucky; Florida Council on Teacher Education; Gayle H. Gear, University of Alabama in Birmingham; Martha Ross Redden, University of Kentucky. All responded with helpful information.

The third step consisted of informal discussions held by the author of this project with small groups of teachers of the gifted, as well as with individual parents of gifted children, in order to gain the benefits of their experience and insights. Copies of a Teacher Questionnaire (see Appendix A) similar to those used in Ingram's (1974) investigation were submitted to all of the teachers who attended the discussion sessions. Forty-three copies of the Questionnaire were completed,

representing a total of 23 teachers of the gifted who reported their most effective instructing and advising behaviors. The project author interviewed 9 individual parents and recorded their observations and suggestions concerning educating and guiding the gifted.

In the fourth step, a total of 751 competencies gathered in the first three steps were listed separately on cards, with their sources, in order to facilitate categorization and consolidation.

The fifth step consisted of selecting conceptually-meaningful, inclusive classifications under which all of the 751 competencies could be listed. The competency categories of Martinson and Wiener (1968), Dodl (Note 1) Ingram (1974), West Virginia State Department of Education (1974), and Gear (Note 3) were thoroughly reviewed by the project author before final selection of the following categories on the basis of their simplicity, clarity, and comprehensiveness: Professional Knowledge and Development (Gear, Note 3); Communication With Parents, Colleagues, and Community (Gear, Note 3); Assessment of Student Needs (Gear, Note 3); Management Skills (Gear, Note 3); Learning Environment (Gear, Note 3); Instructional Skills (Gear, Note 3); Individualized Curricula (Gear, Note 3);

Goal Setting (Gear, Note 3); Use of Learning Resources (Gear, Note 3); Evalution of Student Progress (Gear, Note 3); Advising Skills (Ingram, 1974).

The sixth, and final, step in compiling the competencies involved six meetings with a specially-selected group of teachers of the gifted and the project author's academic advisor for the purpose of critiquing, consolidating, and refining the competencies. The resulting list consisted of 111 competencies, stated in behavioral terms, derived primarily from information obtained from administrations of the Teacher Questionnaire and from the literature sources listed in Table 1.

Validating the Competencies

The 111 competencies derived in step six of the compilation procedure were incorporated into a Likert-type rating instrument and mailed, with an accompanying form letter (see Appendix B) to 67 nationally-recognized experts in the field of gifted child education. The experts were chosen from "An Informal Listing of Names and Addresses of the Gifted Child Establishment," published in The Gifted Child Quarterly (Spring, 1977, pp. 17-20).

Table 1

Major Literature Sources

for Competencies of Teachers of the Gifted

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1. Barbe, W. B. & Renzulli, J. S. (Eds.). Psychology and education of the gifted (2nd ed.). New York: Irvington Publishers, 1965.

2. Bloom, B. S. (Ed.), Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. Taxonomy of educational objectives. Handbook I: Cognitive domain. New York: David K. McKay Company, 1956.

3. Flanders, N. A. Teacher influence, pupil attitudes, and achievement. Washington, D. C.: U. S. Department of Health, Education & Welfare, OE-25040, 1965.

4. Florida State Board of Education. Guidelines for planning and conducting essential competency studies. Unpublished manuscript, 1976. (Available from Council on Teacher Education, Florida State Board of Education, Tallahassee, Fla.)

5. Gallagher, J. J. Teaching the gifted child (2nd ed.). Boston: Allyn & Bacon, 1975.

6. Gear, G. H. Mainstreaming: Needs assessment in teacher preparation. Unpublished manuscript, 1977. (Available from Interrelated Teacher Education Project, School of Education, University of Alabama in Birmingham, Birmingham, Ala.)

7. Gowan, J. C. & Torrance, E. P. Educating the ablest. Itasca, Ill.: F. E. Peacock, Publishers, 1971.

8. Hildreth, G. H. Introduction to the gifted. New York: McGraw-Hill Book Company, 1966.

Table 1 (continued)

9. Krathwohl, D. R., Bloom, B. S., & Masia, B. B. Taxonomy of educational objectives. Handbook II: Affective domain. New York: David McKay Company, 1956.

10. Martinson, R. A. & Wiener, J. The improvement of teaching procedures with gifted elementary and secondary school students. Gardena, Calif.: California State College, 1968. (Eric Document Reproduction Service No. ED 024 185)

11. National Society for the Study of Education, 57th Yearbook. Education for the gifted. Chicago: University of Chicago Press, 1958.

12. North Carolina State Department of Public Instruction. Competency-based program for certification: Gifted and talented. Raleigh, N. C.: Division for Exceptional Children, 1975. (ERIC Document Reproduction Service No. ED 105 684)

13. Steele, J. M., House, E. R., Lapan, S. D., & Kerins, T. Assessing instructional climate: Development of the CAQ (class attitude questionnaire). Patterns of cognitive and affective emphasis in gifted and average classes. Urbana, Ill.: Center for Instructional Research & Curriculum Evaluation, Illinois University, 1971. (ERIC Document Reproduction Service No. ED 047 325)

14. West Virginia State Department of Education. Guidelines for special education. Unpublished manuscript. (Available from State Superintendent of Education, Charleston, West Va.)

Each respondent rated the importance of the competencies on a scale from 1 to 5, as follows:

1 = Marginally Important
2 = Mildly Important
3 = Moderately Important
4 = Highly Important
5 = Extremely Important

The 111 competency statements, with their mean ratings and standard deviations, are given in Table 2. Only the higher-ranked competencies--those with mean ratings of 4.00 and above--were included in the final listing of Essential Competencies of Teachers of the Gifted. The purpose of selecting the high limit of 4.00 was to provide discrimination between competencies that were merely desirable and those that were essential for instruction and guidance of the gifted.

Eighty-seven Essential Competencies of Teachers of were validated by the experts' mean ratings of 4.00 and above. A list of the number of competencies assigned to each category before consolidation, after consolidation in the rating instrument, and after content validation by the experts is provided in Table 3.

Returns of the rating instrument were as follows: 29 experts, or 43% of the total who had been contacted, responded initially. A personal follow-up letter (see

Table 2

The 111 Competency Statements

With their Mean Ratings and Standard Deviations

Mean Rating	Standard Deviation		Competency
			Category: Professional Knowledge and Development
4.69	.50	1.	Identify the special learning characteristics of gifted students.
4.48	.67	2.	Demonstrate knowledge of factors that can inhibit full development of a gifted individual.
4.47	.96	3.	Develop a personal philosophy of education for the gifted.
4.46	.82	4.	Explain a sound rationale for providing differential education for the gifted.
4.42	1.04	5.	Apply multi-criteria approaches to selection of students for gifted programs.
4.38	.93	6.	Develop a personal, ongoing plan to upgrade competencies for teaching the gifted.
4.33	.78	7.	Demonstrate knowledge of the creative process.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Professional Knowledge and Development (cont.)
4.31	.82	8.	Evaluate adequacy of curricula according to basic principles of differential education for the gifted.
4.25	.76	9.	Demonstrate subject matter expertise.
3.52	1.32	10.	Demonstrate an understanding of basic terminology used in special education of the gifted.
3.31	1.26	11.	Compare and evaluate administrative designs--e.g., itinerant teachers, resource rooms, special classes--for serving the gifted.
3.23	1.01	12.	Interpret literature and research studies concerning the gifted.
2.88	1.19	13.	Interpret state and federal legislation and guidelines for educating the gifted.
2.65	1.16	14.	Show knowledge of the history of educational programs for the gifted.

Table 2 (continued)

Standard Deviation		Competency
		Category: Communication with Parents, Colleagues, and Community
.79	15.	Communicate with guidance counselors and other school personnel concerning the needs of gifted students.
.80	16.	Conduct individual and group conferences with parents concerning the goals and techniques of special education for the gifted.
.82	17.	Guide parents in implementing a planned program for their gifted child's intellectual and social development.
1.26	18.	Conduct inservice programs for regular school personnel on identification and programming for the gifted.
.97	19.	Participate in activities designed to promote community awareness of the desirability of providing special education for the gifted.
		Category: Assessment of Student Needs
.87	20.	Formulate educational implications from psychological and diagnostic reports.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Assessment of Student Needs (continued)
4.13	.87	21.	Gather pertinent information from parents concerning the gifted student's needs, interests, and abilities.
4.13	.99	22.	Select or construct informal assessment methods to appraise the learner's present level of academic performance.
4.02	.89	23.	Interpret background information from permanent records in order to determine student needs and abilities.
3.84	1.00	24.	Administer and interpret standardized tests designed to predict learner achievement and show special areas of aptitude.
3.60	1.21	25.	Assess creativity (fluency, flexibility, elaboration, and originality) in the gifted through use of valid creativity measures.
			Category: Management Skills
4.75	.56	26.	Promote individual responsility for learning.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Management Skills (continued)
4.51	.67	27.	Develop flexible time schedules that provide for individual needs of students.
4.35	.93	28.	Allot times for pupils to pursue special interests.
4.22	.67	29.	Organize learning activities to obtain maximum benefit from volunteers, mentors, and other community resources.
4.20	.87	30.	Manage student learning in an orderly fashion while allowing flexibility of movement, use of materials, and dialogue.
4.06	.85	31.	Develop an efficient schedule for teaching, assessment, and liaison work.
4.06	.90	32.	Develop and maintain a variety of grouping patterns, providing opportunity for students to reach social and academic goals.
3.84	1.00	33.	Develop skills in redirecting group behavior toward a goal

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Management Skills (continued)
3.78	1.21	34.	Formulate a realistic standard for student behavior in the classroom, and employ suitable techniques for correction of misbehavior.
3.78	1.02	35.	Identify or develop an adequate system for keeping records of class and individual student progress.
3.73	1.18	36.	Provide adequate space for students to work individually and in groups.
3.65	1.07	37.	Establish a set of classroom routines and procedures for optimal utilization of materials and physical environment.
			Category: Learning Environment
4.82	.38	38.	Encourage independent, objective thought and examination of full implications of ideas.
4.80	.81	39.	Encourage unusual ideas and imaginative products.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Learning Environment (continued)
4.78	.56	40.	Develop a trust relationship with students through fairness, consistency, and openness.
4.78	.58	41.	Encourage active student participation in the learning process.
4.63	.66	42.	Create an environment conducive to group discussions, wholesome social relations, and good mental health.
4.63	.56	43.	Give encouragement, support, and positive criticism to students.
4.63	.56	44.	Make the classroom an incubator of ideas, fostering respect for divergent thinking.
4.57	.92	45.	Provide a warm, supportive instructional climate, free from authoritarianism and impatience.
4.53	.75	46.	Encourage more interest in "why" than "what", orienting students toward the scientific method.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Learning Environment (continued)
4.31	.75	47.	Promote free exchanges of ideas and valuing of each student's talents and contributions.
4.31	.90	48.	Provide for recognition of outstanding performance.
4.30	.81	49.	Apply problem-solving approaches to develop students' interpersonal skills.
4.25	.77	50.	Conduct activities--e.g., role playing, discussions--which encourage respect for unique abilities and acceptance of individual differences.
4.25	.77	51.	Provide opportunities for communication among students.
3.92	1.14	52.	Demonstrate a high tolerance for diversity and disorder.
3.86	.104	53.	Arrange the physical environment for optimum learning.
			Category: Instructional Skills
4.72	.46	54.	Employ teaching strategies that engage students in the higher orders of intellectual activity.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Instructional Skills (continued)
4.69	.46	55.	Encourage students to explore, explain, support, and evaluate ideas in discussion.
4.60	.59	56.	Organize activities to interrelate cognitive and affective dimensions of learning.
4.51	.67	57.	Utilize varied questioning techniques to stimulate student responses and participation.
4.47	.70	58.	Give suitable recognition and reinforce accomplishments of each student.
4.39	.75	59.	Use the interdisciplinary approach, relating the subject under study to other academic areas.
4.33	.86	60.	Organize activities that will allow students to choose projects best suited to their learning styles and interests.
4.33	.79	61.	Use varied techniques to stimulate learner responses and participation--e.g., games, simulation, role playing, research projects.

Table 2 (continued)

Mean Rating	Standard Deviation		Category
			Category: Instructional Skills (continued)
4.31	.73	62.	Give opportunities for leadership experiences.
4.24	.77	63.	Select the teaching technique best suited for achieving student learning objectives.
4.18	.85	64.	Develop techniques to aid values clarification.
4.16	.94	65.	Specify instructional options for learners, including remedial and advanced activities.
3.82	1.13	66.	Organize instruction that parallels course objectives and requirements.
			Category: Individualized Curricula
4.70	.61	67.	Communicate the excitement of doing original research, exploring the unknown, and pushing knowledge forward.
4.57	.70	68.	Design curricula to develop special talents and abilities of gifted students.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Individualized Curricula (continued)
4.46	.67	69.	Select instructional strategies to meet the individual learner's needs and stated objectives.
4.41	.82	70.	Encourage students to read widely and broaden their interests.
4.39	.89	71.	Identify individual student learning styles and develop curricula accordingly.
4.35	.87	72.	Design and select curricula to provide learning opportunities at all levels of cognition.
4.29	.86	73.	Relate class activities to students' interests and needs.
4.25	.81	74.	Show knowledge of specific educational strategies suitable for instruction of the gifted--e.g., brainstorming, group investigation, simulation.
4.14	.91	75.	Lead students to appreciate the importance of human achievements throughout history.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Individualized Curricula (continued)
4.10	1.01	76.	Improvise instruction from a wide range of equipment, such as calculators, newspapers, musical instruments, and games.
4.10	.99	77.	Organize curricula around developmental and learning theories.
4.02	1.02	78.	Design and sequence students' learning experiences to achieve learning and behavioral objectives.
4.00	1.27	79.	Select or develop remedial materials to permit the gifted learner to progress at his own rate and in his own style.
			Category: Goal Setting
4.40	.67	80.	Use pertinent information in analyzing a student's strengths and weaknesses.
4.13	.86	81.	Involve the student and his parents in establishing individual learning goals.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Goal Setting (continued)
4.12	.98	82.	Develop instructional objectives, including short-term and long-term goals.
3.87	1.04	83.	Cooperate with colleagues (administrators, teachers, counselors) in developing appropriate objectives and learning experiences for each student.
3.86	1.10	84.	Involve the class in establishing group goals.
			Category: Use of Learning Resources
4.49	.64	85.	Utilize skills and experiences of students.
4.44	.69	86.	Provide multiple learning resources--e.g., library, community, media, government.
4.38	.74	87.	Coordinate activities of the resource and class rooms to to meet individual student learning goals.
4.31	.82	88.	Obtain auxiliary services from appropriate sources for pupils with special talents.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Use of Learning Resources (continued)
4.27	.88	.89	Demonstrate knowledge of a variety of instructional approaches.
4.17	.87	90.	Involve community groups, businesses, professionals, and sponsors in planning supplementary learning activities.
4.15	.89	91.	Use instructional media, equipment, and other resources effectively.
4.08	.95	92.	Provide opportunities for students to observe workers in vocations of interest.
			Category: Evaluation of Student Progress
4.73	.56	93.	Assist students in self-evaluation of progress toward learning and behavioral objectives.
4.49	.78	94.	Include questions in examinations which adequately sample behaviors in synthesizing, analyzing, and evaluating information.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Evaluation of Student Progress (continued)
4.43	.78	95.	Provide feedback to students regarding their performance on examinations.
4.20	.90	96.	Write an objective summary of the learner's progress at appropriate intervals, and communicate the information to both student and parents.
4.18	.84	97.	Make written evaluative comments on student assignments and examinations.
4.14	.81	98.	Use informal evaluation techniques to monitor the learner's progress toward stated curricular objectives.
4.02	1.02	99.	Design a recording system for each student which indicates his progress in relation to stated objectives.
3.63	1.16	100.	Demonstrate knowledge of proper use of standardized achievement tests.
3.51	1.25	101.	Construct classroom tests to measure student performance according to criteria based upon objectives.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Advising Skills
4.52	.68	102.	Encourage students to form judgments and change behavior on the basis of valid evidence.
4.46	.89	103.	Encourage students to develop a personal code of ethics.
4.33	.74	104.	Demonstrate understanding of the unique counseling needs of the gifted.
4.20	.79	105.	Guide learners in recognizing extracurricular opportunities for personal and academic growth.
4.10	.79	106.	Assist students in developing broad conceptions of vocational and professional roles.
4.10	.82	107.	Direct students to appropriate support services, such as those provided by counselors, for guidance and aid.
4.06	.88	108.	Advise students, both individually and collectively, concerning their academic needs.

Table 2 (continued)

Mean Rating	Standard Deviation		Competency
			Category: Advising Skills (continued)
3.63	1.03	109.	Identify sources of financial aid to needy gifted students
3.45	1.11	110.	Be able to discuss career opportunities in the student's field of interest.
3.38	1.12	111.	Encourage students to bring academic and personal problems to the teacher.

Table 3

Number of Competencies Assigned to Each Category

	Number of Competencies		
	Before Consolidation	After Consolidation	After Content Validation
Professional Knowledge and Development	165	14	9
Communication with Parents, Colleagues, and Community	24	5	3
Assessment of Student Needs	22	6	4
Management Skills	47	12	7
Learning Environment	140	16	14
Instructional Skills	148	13	12
Individualized Curricula	46	13	13
Goal Setting	23	5	3
Use of Learning Resources	47	8	8
Evaluation of Student Progress	24	9	7
Advising Skills	65	10	7
Total Number of Competencies	751	111	87

Appendix C) was sent to each of the 38 who had not responded. The final return total was 52, which comprised 78% of the 67 who had been asked to participate. This return was considered adequate (Kerlinger, 1964, p. 397). Included among the 52 respondents were 26 university faculty members, 13 education agency administrators, and 8 officers of advocacy organizations for the gifted. These proportions of faculty members, administrators, and officers were approximately equal to their proportional representation among all who had been contacted.

A summary of all project activities, including dates of their completion, is given in Table 4 at the end of this chapter.

Essential Competencies of Teachers of the Gifted

This final, categorized listing of 87 Essential Competencies of Teachers of the Gifted is composed of statements which were validated by high mean ratings--4.00 or above on the 5-point scale--by the experts who returned the rating instrument. They are listed in descending order of mean ratings under the categories to which they were assigned.

Category: Professional Knowledge and Development

1. Identify the special learning characteristics of gifted students.

2. Demonstrate knowledge of factors that can inhibit full development of a gifted individual.

3. Develop a personal philosophy of educatfon for the gifted.

4. Explain a sound rationale for providing differential education for the gifted.

5. Apply multi-criteria approaches to selection of students for gifted programs.

6. Develop a personal, ongoing plan to upgrade competencies for teaching the gifted.

7. Demonstrate knowledge of the creative process.

8. Evaluate adequacy of curricula according to basic principles of differential education for the gifted.

9. Demonstrate subject matter expertise.

Category: Communication with Parents, Colleagues, and Community

10. Communicate with guidance counselors and other school personnel concerning the needs of gifted students.

11. Conduct individual and group conferences with

parents concerning the goals and techniques of special education for the gifted.

12. Guide parents in implementing a planned program for their gifted child's intellectual and social development.

Category: Assessment of Student Needs

13. Formulate educational implications from psychological and diagnostic reports.

14. Gather pertinent information from parents concerning the gifted student's needs, interests, and abilities.

15. Select or construct informal assessment methods to appraise the learner's present level of academic performance.

16. Interpret background information from permanent records in order to determine student needs and abilities.

Category: Management Skills

17. Promote individual responsibility for learning.

18. Develop flexible time schedules that provide for individual needs of students.

19. Allot times for pupils to pursue special interests.

20. Organize learning activities to obtain maximum

benefit from volunteers, mentors, and other community resources.

21. Manage student learning in an orderly fashion while allowing flexibility of movement, use of materials, and dialogue.

22. Develop an efficient schedule for teaching, assessment, and liaison work.

23. Develop and maintain a variety of grouping patterns, providing opportunity for students to reach social and academic goals.

Category: Learning Environment

24. Encourage independent, objective thought and examination of full implications of ideas.

25. Encourage unusual ideas and imaginative products.

26. Develop a trust relationship with students through fairness, consistency, and openness.

27. Encourage active student participation in the learning process.

28. Create an environment conducive to group discussions, wholesome social relations, and good mental health.

29. Give encouragement, support, and positive criticism

to students.

30. Make the classroom an incubator of ideas, fostering respect for divergent thinking.

31. Provide a warm, supportive instructional climate, free from authoritarianism and impatience.

32. Encourage more interest in "why" than "what", orienting students toward the scientific method.

33. Promote free exchanges of ideas and valuing of each student's talents and contributions.

34. Provide for recognition of outstanding performance.

35. Apply problem-solving approaches to develop students' interpersonal skills.

36. Conduct activities--e.g., role playing, discussions--which encourage respect for unique abilities and acceptance of individual differences.

37. Provide opportunities for communication among students.

Category: Instructional Skills

38. Employ teaching strategies that engage students in the higher orders of intellectual activity.

39. Encourage students to explore, explain, support and evaluate ideas in discussion.

40. Organize activities to interrelate cognitive and affective dimensions of learning.

41. Utilize varied questioning techniques to stimulate student responses and participation.

42. Give suitable recognition and reinforce accomplishments of each student.

43. Use the interdisciplinary approach, relating the subject under study to other academic areas.

44. Organize activities that will allow students to choose projects best suited to their learning styles and interests.

45. Use varied techniques to stimulate learner responses and participation--e.g., games, simulation, role playing, research projects.

46. Give opportunities for leadership experiences.

47. Select the teaching technique best suited for achieving student learning objectives.

48. Develop techniques to aid values clarification.

49. Specify instructional options for learners, including remedial and advanced activities.

Category: Individualized Curricula

50. Communicate the excitement of doing original re-

search, exploring the unknown, and pushing knowledge forward.

51. Design curricula to develop special talents and abilities of gifted students.

52. Select instructional strategies to meet the individual learner's needs and stated objectives.

53. Encourage students to read widely and broaden their interests.

54. Identify individual student learning styles and develop curricula accordingly.

55. Design and select curricula to provide learning opportunities at all levels of cognition.

56. Relate class activities to students' interests and needs.

57. Show knowledge of specific educational strategies suitable for instruction of the gifted--e.g. brainstorming, group investigation, simulation.

58. Lead students to appreciate the importance of human achievements throughout history.

59. Improvise instruction from a wide range of equipment, such as calculators, newspapers, musical instruments, and games.

60. Organize curricula around development and learn-

ing theories.

61. Design and sequence students' learning experiences to achieve learning and behavioral objectives.

62. Select or develop remedial materials to permit the gifted learner to progress at his own rate and in his own style.

Category: Goal Setting

63. Use pertinent information in analyzing a student's strengths and weaknesses.

64. Involve the student and his parents in establishing individual learning goals.

65. Develop instructional objectives, including short-term and long-term goals.

Category: Use of Learning Resources

66. Utilize skills and experiences of students.

67. Provide multiple learning resources--e.g., library, community, media, government.

68. Coordinate activities of the resource and class rooms to meet individual student learning goals.

69. Obtain auxiliary services from appropriate sources for pupils with special talents.

70. Demonstrate knowledge of a variety of instructional approaches.

71. Involve community groups, businesses, professionals, and sponsors in planning supplementary learning activities.

72. Use instructional media, equipment, and other resources effectively.

73. Provide opportunities for students to observe workers in vocations of interest.

Category: Evaluation of Student Progress

74. Assist students in self-evaluation of progress toward learning and behavioral objectives.

75. Include questions in examinations which adequately sample behaviors in synthesizing, analyzing, and evaluating information.

76. Provide feedback to students regarding their performance on examinations.

77. Write an objective summary of the learner's progress at appropriate intervals, and communicate the information to both student and parents.

78. Make written evaluative comments on student assignments and examinations.

79. Use informal evaluation technques to monitor the

learner's progress toward stated curricular objectives.

80. Design a recording system for each student which indicates his progress in relation to stated objectives.

Category: Advising Skills

81. Encourage students to form judgments and change behavior on the basis of valid evidence.

82. Encourage students to develop a personal code of ethics.

83. Demonstrate understanding of the unique counseling need of the gifted.

84. Guide learners in recognizing extracurricular opportunities for personal and academic growth.

85. Assist students in developing broad conceptions of vocational and professional roles.

86. Direct students to appropriate support services, such as those provided by counselors, for guidance and aid.

87. Advise students, both individually and collectively, concerning their academic needs.

Table 4

Schedule of

Compilation and Content Validation of Competencies

Activity	Date Completed
Selected Research topic	Jan. 5, 1977
Identified research method	Jan. 10, 1977
Reviewed past research on teacher characteristics, competence, and effectiveness	Feb. 25, 1977
Gathered competencies from literature of general and special education	Mar. 8, 1977
Investigated recent and current research studies on teacher competence	Mar. 22, 1977
Conducted informal discussions with teachers and parents of the gifted	Apr. 18, 1977
Categorized the competencies	Apr. 30, 1977
Critiqued, compiled, and refined the competencies	May 14, 1977
Mailed cover letter and rating instrument to 67 experts in the field	May 19, 1977
Sent personal follow-up letter to each expert who had failed to respond to initial mailing	June 6, 1977
Compiled and analyzed results of experts' competency ratings	July 13, 1977

IV. SUMMARY, CONCLUSIONS, AND IMPLICATIONS

While recognizing the importance of every teacher's knowledge, skills, and attitudes as keys to effective learning in all elementary and secondary school programs, the author of this project chose to investigate the essential competencies of one small segment of the profession--the teacher of the intellectually gifted.

Project Summary

The Statement of the Problem includes definitions, terms, a general research overview, and a discussion of the need for a validated competency listing for professional instruction and evaluation of preservice and inservice teachers of the gifted.

The Review of the Literature shows that many experts have tended to catalogue the virtues of mankind when naming desirable characteristics and competencies of teachers of gifted students, but little effort has been made to provide evidence for their validity. Notable excep-

tions to this trend were the well-done studies of Bishop (1966) and Martinson and Wiener (1968).

The model for this project was the Gear (Note 3) mainstreaming competency study. Procedures and results were as follows:

A total of 751 competencies were gathered from written opinions of experts, results of empirical studies of teacher-student classroom interaction, findings of special education researchers, and interviews with parents and teachers of the gifted. The competencies were listed separately on cards, with sources, and placed within eleven comprehensive categories. Discussions were held with selected teachers and the academic advisor of the author for the purpose of critiquing, consolidating, and refining the statements. These discussions resulted in the consolidation of the 751 initial competencies into 111 competency statements, written in behavioral terms. The statements were then incorporated into a Likert-type rating instrument and sent to 67 nationally-recognized experts for content validation. The total number of rating instrument returns, 52, comprised 78% of the experts who were asked to participate in the validation procedure. A final validated listing, Essential Compe-

tencies of Teachers of the Gifted, is included in Chapter III of this report.

Conclusions

A conviction of the tremendous need for validated competency objectives in the training and evaluation of teachers of the intellectually gifted prompted the author to compile and provide preliminary validation for the listing of competency selections contained in this report. Treating all of the competencies as testable hypotheses should enable directors of teacher training programs and administrators of education agencies to proceed with collecting evidence to support or reject the hypotheses. Ultimately, such an empirical approach might result in accurate prediction of the most valid criterion of teacher effectiveness--pupil gain.

Implications

The findings of this project suggest several implications for selecting, training, and evaluating preservice and inservice teachers of the gifted.

1. Prospective teachers of the gifted should be carefully screened for evidence of superior intellectual

abilities and empathic attitudes toward the gifted before admission to university training programs.

2. Developers of university curricula for teachers of the gifted would be wise to consider each of the 24 unselected competencies (those with mean ratings below 4.00) for inclusion in any potential listing of training objectives, for all of them received high evaluations from a number of the experts. Furthermore, all have been recommended in the literature.

3. The need for scientific objectivity dictates that each competency selection be subject to continual revision in the light of empirical evidence of its validity.

4. Ultimately, the development of accurate predictors of pupil gain could result in adoption of objective standards of excellence for the awarding of tenure and merit pay to teachers.

APPENDIX A

Teacher Questionnaire

TEACHER QUESTIONNAIRE

Think of a recent time when you were in a teaching or advising situation in which the student(s) involved appeared to benefit from your approach. Approximately how long ago did it happen? _____

What circumstances led to the situation? _____

_____

_____

_____

_____

Exactly what did you do? _____

_____

_____

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What resulted that made you feel that the approach was effective? _____

_____

_____

_____

_____

APPENDIX B

Cover Letter
and Rating Instrument

May 17, 1977

Dear Friend of Gifted Education:

The research design of my Master's thesis called for compilation of a comprehensive, categorized listing of essential competencies of teachers of the intellectually gifted, emphasizing skills in both cognitive and affective areas. The rationale for conducting this project was my conviction of its tremendous potential for practical use as a basis for teacher self-assessment, professional coursework, and evaluation of teacher performance.

The competencies were gathered in the following manner: Statements were gleaned from the literature of both general and special education. Researchers were asked to share their findings. Informal discussions were held with teachers and parents of the gifted. The competencies gathered in the foregoing steps were then stated in behavioral terms and grouped into categories. Teachers of the gifted participated in follow-up discussions to critique and refine the statements.

The crucially-important step of content validation of the competency statements will be provided by you and other widely-recognized experts in the field of gifted education. The research design requires that they be rated on a Likert-type scale, from one to five, according to their importance. Your prompt attention to rating the competencies and returning them by the early part of June is vitally important to the success of the study. I will be especially appreciative of your cooperation at this busy time of year.

Please rate the importance of each competency on the following scale:

5 = Extremely Important
4 = Highly Important
3 = Moderately Important
2 = Mildly Important
1 = Marginally Important

After completing all categories in the instrument, please fold once and return in the enclosed envelope.

Sincerely,

Charlotte Donaldson
Department of Special Education
University of Ala. in Birmingham

Enclosure

PROFESSIONAL KNOWLEDGE AND DEVELOPMENT

1 2 3 4 5 1. Compare and evaluate various administrative designs--e.g. itinerant teachers, resource rooms, special classes--for serving the gifted.

1 2 3 4 5 2. Demonstrate an understanding of basic terminology used in special education of the gifted.

1 2 3 4 5 3. Interpret state and federal legislation and guidelines for educating the gifted.

1 2 3 4 5 4. Develop a personal philosophy of education for the gifted.

1 2 3 4 5 5. Explain a sound rationale for providing differential education for the gifted.

1 2 3 4 5 6 Develop a personal, ongoing plan to upgrade competencies for teaching the gifted.

1 2 3 4 5 7. Show knowledge of the history of educational programs for the gifted.

1 2 3 4 5 8. Identify the special learning characteristics of gifted students.

1 2 3 4 5 9. Apply multi-criteria approaches to selection of students for gifted programs.

1 2 3 4 5 10. Evaluate adequacy of curricula according to basic principles of differential education for the gifted.

1 2 3 4 5 11. Demonstrate knowledge of factors that can inhibit full development of a gifted individual.

1 2 3 4 5 12. Demonstrate knowledge of the creative process.

1 2 3 4 5 13. Demonstrate subject matter expertise.

1 2 3 4 5 14. Interpret literature and research studies concerning the gifted.

COMMENTS:

COMMUNICATION WITH PARENTS, COLLEAGUES, AND COMMUNITY

1 2 3 4 5 1. Participate in activities designed to promote community awareness of the desirability of providing special education for the gifted.

1 2 3 4 5 2. Guide parents in implementing a planned program for their gifted child's intellectual and social development.

1 2 3 4 5 3. Conduct individual and group conferences with parents concerning the goals and techniques of special education for the gifted.

1 2 3 4 5 4. Communicate with guidance counselors and other school personnel concerning the needs of gifted students.

1 2 3 4 5 5. Conduct inservice programs for regular school personnel on identification and programming for the gifted.

COMMENTS:

ASSESSMENT OF STUDENT NEEDS

1 2 3 4 5 1. Gather pertinent information from parents concerning the gifted student's needs, interests, and abilities.

1 2 3 4 5 2. Select or construct informal assessment methods to appraise the learner's present level of academic performance.

1 2 3 4 5 3. Assess creativity (fluency, flexibility, elaboration, and originality) in the gifted through use of valid creativity measures.

1 2 3 4 5 4. Administer and interpret standardized tests designed to predict learner achievement and show special areas of aptitude.

1 2 3 4 5 5. Interpret background information from permanent records in order to determine student needs and abilities.

1 2 3 4 5 6. Formulate educational implications from psychological and diagnostic reports.

COMMENTS:

MANAGEMENT SKILLS

1 2 3 4 5 1. Identify or develop an adequate system for keeping records of class and individual student progress.

1 2 3 4 5 2. Organize learning activities to obtain maximum benefit from volunteers, mentors, and other community resources.

1 2 3 4 5 3. Develop an efficient schedule for teaching, assessment, and liaison work.

1 2 3 4 5 4. Develop flexible time schedules that provide for individual needs of students.

1 2 3 4 5 5. Provide adequate space for students to work individually and in groups.

1 2 3 4 5 6. Allot times for pupils to pursue special interests.

1 2 3 4 5 7. Promote individual responsibility for learning.

1 2 3 4 5 8. Formulate a realistic standard for student behavior in the classroom, and employ suitable techniques for correction of misbehavior.

1 2 3 4 5 9. Develop skills in redirecting group behavior toward a goal.

1 2 3 4 5 10. Manage student learning in an orderly fashion while allowing flexibility of movement, use of materials, and dialogue.

1 2 3 4 5 11. Establish a set of classroom routines and procedures for optimal utilization of materials and physical environment.

1 2 3 4 5 12. Develop and maintain a variety of grouping patterns, providing opportunity for students to reach social and academic goals.

COMMENTS:

5 = Extremely Important
4 = Highly Important
3 = Moderately Important
2 = Mildly Important
1 = Marginally Important

LEARNING ENVIRONMENT

1 2 3 4 5 1. Encourage active student participation in the learning process.

1 2 3 4 5 2. Arrange the physical environment for optimum learning.

1 2 3 4 5 3. Apply problem-solving approaches to develop students' interpersonal skills.

1 2 3 4 5 4. Make the classroom an incubator of ideas, fostering respect for divergent thinking.

1 2 3 4 5 5. Demonstrate a high tolerance for diversity and disorder.

1 2 3 4 5 6. Conduct activities--e.g. role playing, discussions--which encourage respect for unique abilities and acceptance of individual differences.

1 2 3 4 5 7. Provide opportunities for communication among students.

1 2 3 4 5 8. Give encouragement, support and positive criticism to students.

1 2 3 4 5 9. Create an environment conducive to group discussions, wholesome social relations, and good mental health.

1 2 3 4 5 10. Provide a warm, supportive instructional climate, free from authoritarianism and impatience.

1 2 3 4 5 11. Develop a trust relationship with students through fairness, consistency, and openness.

1 2 3 4 5 12. Encourage more interest in "why" than "what", orienting students toward the scientific method.

1 2 3 4 5 13. Promote free exchanges of ideas and valuing of each student's talents and contributions.

1 2 3 4 5 14. Provide for recognition of outstanding performance.

1 2 3 4 5 15. Encourage independent, objective thought and examination of full implications of ideas.

1 2 3 4 5 16. Encourage unusual ideas and imaginative products.

COMMENTS:

INSTRUCTIONAL SKILLS

1 2 3 4 5 1. Specify instructional options for learners, including remedial and advanced activities.

1 2 3 4 5 2. Encourage students to explore, explain, support, and evaluate ideas in discussion.

1 2 3 4 5 3. Utilize varied questioning techniques to stimulate student responses and participation.

1 2 3 4 5 4. Use the interdisciplinary approach, relating the subject under study to other academic areas.

1 2 3 4 5 5. Employ teaching strategies that engage students in the higher orders of intellectual activity.

1 2 3 4 5 6. Organize activities to interrelate cognitive and affective dimensions of learning.

1 2 3 4 5 7. Develop techniques to aid values clarification.

1 2 3 4 5 8. Give opportunities for leadership experiences.

1 2 3 4 5 9. Give suitable recognition and reinforce accomplishments of each student.

1 2 3 4 5 10. Organize activities that will allow students to choose projects best suited to their learning styles and interests.

1 2 3 4 5 11. Organize instruction that parallels course objectives and requirements.

1 2 3 4 5 12. Select the teaching technique best suited for achieving student learning objectives.

1 2 3 4 5 13. Use varied techniques to stimulate learner responses and participation--e.g. games, simulation, role playing, research projects.

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INDIVIDUALIZED CURRICULA

1 2 3 4 5 1. Relate class activities to students' interests and needs.

1 2 3 4 5 2. Improvise instruction from a wide range of equipment, such as calculators, newspapers, musical instruments, and games.

1 2 3 4 5 3. Show knowledge of specific educational strategies suitable for instruction of the gifted--e.g. brainstorming, group investigation, simulation.

1 2 3 4 5 4. Design and sequence students' learning experiences to achieve learning and behavioral objectives.

1 2 3 4 5 5. Organize curricula around developmental and learning theories.

1 2 3 4 5 6. Identify individual student learning styles and develop curricula accordingly.

1 2 3 4 5 7. Select instructional strategies to meet the individual learner's needs and stated objectives.

1 2 3 4 5 8. Design curricula to develop special talents and abilities of gifted students.

1 2 3 4 5 9. Select or develop remedial materials to permit the gifted learner to progress at his own rate and in his own style.

1 2 3 4 5 10. Design and select curricula to provide learning opportunities at all levels of cognition.

1 2 3 4 5 11. Encourage students to read widely and broaden their interests.

1 2 3 4 5 12. Lead students to appreciate the importance of human achievements throughout history.

1 2 3 4 5 13. Communicate the excitement of doing original research, exploring the unknown, and pushing knowledge forward.

COMMENTS:

GOAL SETTING

1 2 3 4 5 1. Involve the class in establishing group goals.

1 2 3 4 5 2. Cooperate with colleagues (administrators, teachers, counselors) in developing appropriate objectives and learning experiences for each student.

1 2 3 4 5 3. Involve the student and his parents in establishing individual learning goals.

1 2 3 4 5 4. Use pertinent information in analyzing a student's strengths and weaknesses.

1 2 3 4 5 5. Develop instructional objectives, including short-term and long-term goals.

COMMENTS:

USE OF LEARNING RESOURCES

1 2 3 4 5 1. Provide multiple learning resources--e.g. library, community, media, government.

1 2 3 4 5 2. Involve community groups, businesses, professionals, and sponsors in planning supplementary learning activities.

1 2 3 4 5 3. Coordinate activities of the resource and class rooms to meet individual student learning goals.

1 2 3 4 5 4. Obtain auxiliary services from appropriate sources for pupils with special talents.

1 2 3 4 5 5. Utilize skills and experiences of students.

1 2 3 4 5 6. Use instructional media, equipment, and other resources effectively.

1 2 3 4 5 7. Demonstrate knowledge of a variety of instructional approaches.

1 2 3 4 5 8. Provide opportunities for students to observe workers in vocations of interest.

COMMENTS:

EVALUATION OF STUDENT PROGRESS

1 2 3 4 5 1. Design a recording system for each student which indicates his progress in relation to stated objectives.

1 2 3 4 5 2. Provide feedback to students regarding their performance on examinations.

1 2 3 4 5 3. Write an objective summary of the learner's progress at appropriate intervals, and communicate the information to both student and parents.

1 2 3 4 5 4. Assist students in self-evaluation of progress toward learning and behavioral objectives.

1 2 3 4 5 5. Use informal evaluation techniques to monitor the learner's progress toward stated curricular objectives.

1 2 3 4 5 6. Construct classroom tests to measure student performance according to criteria based upon objectives.

1 2 3 4 5 7. Demonstrate knowledge of proper use of standardized achievement tests.

1 2 3 4 5 8. Include questions in examinations which adequately sample behaviors in synthesizing, analyzing, and evaluating information.

1 2 3 4 5 9. Make written evaluative comments on student assignments and examinations.

COMMENTS:

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ADVISING SKILLS

1 2 3 4 5 1. Demonstrate understanding of the unique counseling needs of the gifted.

1 2 3 4 5 2. Encourage students to form judgments and change behavior on the basis of valid evidence.

1 2 3 4 5 3. Encourage students to develop a personal code of ethics.

1 2 3 4 5 4. Advise students, both individually and collectively, concerning their academic needs.

1 2 3 4 5 5. Guide learners in recognizing extracurricular opportunities for personal and academic growth.

1 2 3 4 5 6. Direct students to appropriate support services, such as those provided by counselors, for guidance and aid.

1 2 3 4 5 7. Identify sources of financial aid to needy gifted students.

1 2 3 4 5 8. Assist students in developing broad conceptions of vocational and professional roles.

1 2 3 4 5 9. Be able to discuss career opportunities in the student's field of interest.

1 2 3 4 5 10. Encourage students to bring academic and personal problems to the teacher.

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SIGNATURE _____

APPENDIX C

Personal Follow-Up Letter

the University of Alabama in Birmingham / UNIVERSITY STATION BIRMINGHAM ALABAMA 35294

University College / SCHOOL OF EDUCATION

DEPARTMENT OF SPECIAL EDUCATION TELEPHONE (205) 934-5340

June 6, 1977

Dr. Dorothy Sisk
Room 2100
General Services Building
7th and D Streets
Washington, D. C. 20202

Dear Dr. Sisk:

Many of the competency questionnaires have been returned, but your response is needed to complete validation of my listing of competencies of teachers of the intellectually gifted.

I am looking forward to hearing from you.

Sincerely,

Charlotte Donaldson
Program in the Education
of the Gifted and Talented

cd

LIST OF REFERENCES

Barr, A. S. Wisconsin studies of the measurement and prediction of teacher effectiveness: A summary of investigations. Journal of Experimental Education, 1961, 30, 5-156.

Bishop, W. E. Characteristics of teachers judged successful by intellectually gifted, high achieving high school students (Doctoral Dissertation, Kent State University, 1966). University Microfilms No. 67-9415.

Blackhurst, A. E. Some practical considerations in implimenting competency-based special education training programs. In J. J. Creamer & J. T. Gilmore (Eds.), Design for competence based education in special education. Syracuse, N. Y.: Teacher Education Division of Special Education and Rehabilitation, School of Education, Syracuse University, 1974.

Boston, B. O. Starting a gifted program. Gifted and talented: Developing elementary and secondary school programs. Reston, Va.: Council for Exceptional Children, 1975. (ERIC Document Reproduction Service No. ED 117 886)

California State Department of Education. Educating the gifted in California Schools. Sacramento, Calif., 1975. (ERIC Document Reproduction Service No. ED 112 627)

Cogan, M. L. The behavior of teachers and the productive behavior of their pupils: I. Perception analysis; II. Trait analysis. Journal of Experimental Education, 1958, 27, 89-124.

Cohen, H. L. & Coryell, N. G. (Eds.). Educating superior students. New York: American Book Co., 1935.

Crow, L. D., & Crow, A. The teacher of the academically able. In Crow, L. D., & Crow, A. (Eds.), Educating

the academically able. New York: David McKay Co., 1963.

Cutts, N. E., & Moseley, N. Teaching the bright and gifted. Englewood Cliffs, N. J.: Prentice-Hall, 1965.

DeHaan, R. F., & Havighurst, R. Educating gifted children (2nd ed.). Chicago: University of Chicago Press, 1961.

Dodl, N. Selecting competency outcomes for teacher education. Journal of Teacher Education, 1973, 24, 194-199.

Durr, W. K. The gifted student. New York: Oxford University Press, 1964.

Flanagan, J. C. Measuring human performance. Pittsburgh, Penna.: American Institute for Research, 1962.

Flanders, N. A. Teacher influence, pupil attitudes, and achievement. Washington, D. C.: U. S. Department of Health, Education and Welfare, OE-25040, 1965.

Freehill, M. F. Gifted children: Their psychology and education. New York: MacMillan Co., 1963.

Freehill, M. F. Intelligence, empathy and methodologic bias about teaching the gifted. Gifted Child Quarterly, Winter 1974, 18, 247-248.

French, J. L. The preparation of teachers of the gifted. Journal of Teacher Education, 1961, 12, 69-72.

Gallagher, J. J. Teaching the gifted child (1st ed.). Boston: Allyn & Bacon, Inc., 1964, 288-293.

Gallagher, J. J. Teaching the gifted child (2nd ed.). Boston: Allyn & Bacon, Inc., 1975.

Gallagher, J. J., & Shaffer, F. Educational problems and planning for gifted students: Selected papers from graduate leadership training program on the gifted. Urbana, Ill.: Illinois University, 1966. (ERIC Document Reproduction Service No. ED 020 590)

Gazzetta, V. C. Professional certification and competency based teacher education in New York state. In J. J. Creamer & J. T. Gilmore (Eds.), Design for competence based education in special education. Syracuse, N. Y.: Teacher Education Division of Special Education and Rehabilitation, School of Education, Syracuse University, 1974.

Gifted Child Quarterly. An informal listing of names and addresses of the gifted child establishment. Spring 1977, 21, 17-20.

Gold, M. J. Education of the intellectually gifted. Columbus, Ohio: Charles E. Merrill Books, 1965.

Gowan, J. C., & Demos, G. D. The education and guidance of the ablest. Springfield, Ill.: Charles C. Thomas, 1964.

Hildreth, G. H. Introduction to the gifted. New York: McGraw-Hill Book Co., 1966.

Hildreth, G. H. Educating gifted children at Hunter College Elementary School. Westport, Conn.: Greenwood Press, 1970.

Ingram, C. F. Instructing and advising competencies for special education professors. An investigation of instructing and advising competencies of special education professors. (Doctoral dissertation, University of Kentucky, 1974.) Available from University Microfilms, Ann Arbor, Michigan.

Kerlinger, F. N. Foundations of behavioral research. New York: Holt, Rinehart and Winston, 1964.

Maker, C. J. Training teachers for the gifted and talented: A comparison of models. Reston, Va.: Council for Exceptional Children, 1975. (ERIC Document Reproduction Service No. ED 119 453)

Marland, S. P. Education of the gifted and talented. Report to the Congress of the United States by U. S. Commissioner of Education and background papers submitted to the U. S. Office of Education, March, 1972.

Washington, D. C.: U. S. Government Printing Office, 1972.

Martinson, R., & Wiener, J. The improvement of teaching procedures with gifted elementary and secondary school students. Gardena, Calif.: California State College, 1968. (ERIC Document Reproduction Service No. ED 024 185.

McNary, S. R. The relationship between certain teacher characteristics and achievement and creativity of gifted elementary students. Syracuse, N. Y.: Syracuse University, 1967. (ERIC Document Reproduction Service No. ED 060 479)

Mirman, N. Teacher qualifications for educating the gifted. Gifted Child Quarterly, Autumn 1964, 8, 123-126.

Morsh, J. E., & Wilder, E. W. Identifying the effective instructor: Review of quantitative studies. San Antonio, Tex.: U. S. Air Force Training Research Center, 1955.

National Education Association, National Commission on Teacher Education and Professional Standards. The assignment and misassignment of American teachers: A summary of the complete report. Washington, D. C.: The Commission, 1965.

Nelson, J. B., & Cleland, D. L. The role of the teacher of gifted and creative children. In W. B. Barbe & J. S. Renzulli (Eds.), Psychology and education of the gifted. New York: Irvington Publishers, 1975, 439-448.

Newland, T. E. The gifted in socioeducational perspective. Englewood Cliffs, N. J.: Prentice-Hall, 1976.

North Carolina State Department of Public Instruction. A guide for the education of exceptionally talented students. Raleigh, N. C., 1969. (ERIC Document Reproduction Service No. ED 035 154)

North Carolina State Department of Public Instruction. Competency-based program for certification: Gifted

and talented. Raleigh, N. C.: Division for Exceptional Children, 1975. (ERIC Document Reproduction Service No. ED 105 684)

Pegnato, C. W., & Birch, J. W. Locating gifted children in junior high schools: A comparison of methods. Exceptional Children, 1959, 25, 300-304.

Remmers, H. H. Rating methods in research on teaching. In N. L. Gage (Ed.), Handbook of research on teaching. Chicago, Ill.: Rand McNally, 1963.

Renzulli, J. S. The enrichment triad model: A guide for developing defensible programs for the gifted and talented. Part I. Gifted Child Quarterly, Fall 1976, 20, 303-326.

Rice, J. P. The gifted: Developing total talent. Springfield, Ill.: Charles C. Thomas, 1970.

Ryans, D. G. Characteristics of teachers. Washington, D. C.: American Council on Education, 1960.

Saadeh, I. Q. Teacher effectiveness or classroom efficiency: A new direction in the evaluation of teaching. Journal of Teacher Education, 1970, 21, 73-91.

Shearron, G. F., & Johnson, C. E. A CBTE program in action: University of Georgia. Journal of Teacher Education, 1973, 24, 194-199.

Sisk, D. Teaching the gifted and talented teacher: A training model. Gifted Child Quarterly, Spring 1975, 19, 81-88.

Steele, J. M., House, E. R., Lapan, S. D., & Kerins, T. Assessing instructional climate: Development of the CAQ (class attitude questionnaire): Patterns of cognitive and affective emphasis in gifted and average classes. Urbana, Ill.: Center for Instructional Research and Curriculum Evaluation, Illinois University, 1971. (ERIC Document Reproduction Service No. ED 047 325)

Strang, R. M. Qualities in teachers which appeal to gif-

ted children. In P. Witty, J. B. Conant, & R. Strang, Creativity of gifted and talented children. New York: Teachers' College, Columbia University, 1959.

Toronto, Ontario, Board of Education. Gifted underachievers: A follow-up study of four types of treatment. Toronto, Ontario, 1964. (ERIC Document Reproduction Service No. ED 063 698)

Torrance, E. P. Education and the creative potential. Minneapolis, Minn.: University of Minnesota Press, 1963.

University of Illinois, Urbana. Demonstration center--Part one: Secondary school programs for gifted students in English, Social Science, Math, and Science. Urbana, Ill., 1967. (ERIC Document Reproduction Service No. ED 027 651)

Ward, V. S. Educating the gifted: An axiomatic approach. Columbus, Ohio: Charles E. Merrill, 1961.

Wilson, F. Teacher education and the gifted. Journal of Teacher Education, 1955, 6, 263-267.

Witty, P. The teacher of gifted children. In P. Witty (Ed.), The gifted child. American Association for Gifted Children, Boston, Mass.: D. C. Heath, 1951.

Witty, P. Who are the gifted? In National Society for the Study of Education, 57th Yearbook, Education for the gifted. Chicago, Ill.: University of Chicago Press, 1958.

LIST OF NOTES

1. Dodl, N. Teacher behavior. Florida catalogue of teacher competencies. Unpublished manuscript, 1973. (Available from Florida State Board of Education, Tallahassee, Fla.)

2. Florida State Board of Education. Guidelines for planning and conducting essential competency studies. Unpublished manuscript, 1976. (Available from Council on Teacher Education, Florida State Board of Education, Tallahassee, Fla.)

3. Gear, G. H. Mainstreaming: Needs assessment in teacher preparation. Unpublished manuscript, 1977. (Available from Interrelated Teacher Education Project, School of Education, University of Alabama in Birmingham, Birmingham, Ala.)

4. West Virginia State Department of Education. Guidelines for special education. Unpublished manuscript, 1974. (Available from State Superintendent of Education, Charleston, West Va.)